REMARKS

Claims 1-21 are pending in this application. By this Amendment, claims 1 and 3 have been amended and claims 20 and 21 have been added. Claim 1 is independent. Reconsideration of the application is respectfully requested.

I. Amendment

Support for the amendment to claims 1 and 3 can be found in the specification at, for example, Figs. 2A and 2B and page 15, lines 7-14. Support for new claims 20 and 21 can be found in the specification at, for example, paragraph [0038]. Thus, no new matter is added.

II. Allowable Subject Matter

Applicants thank the Examiner for the indication that claims 5, 6, 8-11 and 14-19 contain allowable subject matter.

III. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1-4, 7, 12 and 13 under 35 U.S.C. §102(b) over U.S. Patent No. 5,616,987 to Ohmura et al. (Ohmura). This rejection is respectfully traversed.

Independent claim 1 recites, *inter alia*, "each dynode extending in a prescribed direction," "the plurality of dynodes having a first dynode having an edge in the prescribed direction and a second dynode having an edge in the prescribed direction, the first dynode receiving electrons from the cathode and multiplying the electrons and emitting the multiplied electrons, and the second dynode receiving the electrons from the first dynode and multiplying the electrons and emitting the multiplied electrons" and "potential regulating means disposed in a prescribed position between the edge of the first dynode and the edge of the second dynode, and smoothing an equipotential surface in a space between the first dynode and the second dynode along the prescribed direction." The applied reference fails to teach or render obvious the recited features of independent claim 1.

The recited each dynode clarifies the prescribed direction. Fig. A (below) shows a perspective view of the dynodes 107a and 107b, the electrodes 115 and 117 and the prescribed direction.

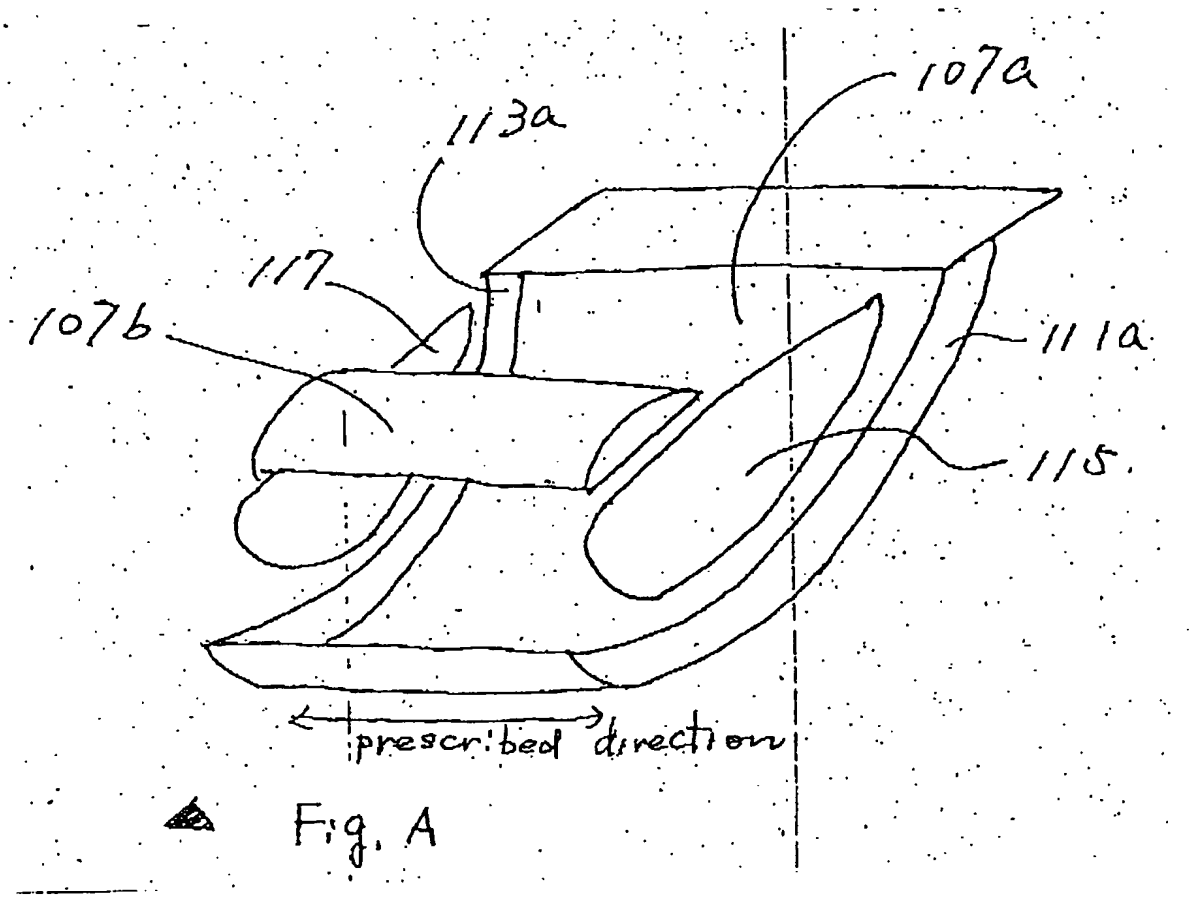

Fig. A

The recited plurality of dynodes recite the positional relationship of the first dynode (107a) and the second dynode (107b). The recited plurality of dynodes defines the edges of the first dynode (107a) and the second dynode (107b). The position of an edge of the first dynode (107a) substantially corresponds to the position of the side wall 111a or 113a. The position of edge of the second dynode substantially corresponds to the position of the side wall 111b or 113b. See Fig. 2A of the specification.

The recited potential regulating means recites the position of the potential regulating means. The potential regulating means smoothes the equipotential surface in the space

between the first and second dynodes along the prescribed direction. In other words, the equipotential lines L1 and M1 of Figs. 2a and 2b are flattened along the prescribed direction. See page 15, lines 7-11.

The Office Action alleges that elements Dyl and Dy2 of Ohmura correspond to the recited plurality of dynodes of the present application and the plate electrode 10 in Ohmura corresponds to the potential regulating means. However, this allegation, as discussed below, is incorrect.

Fig. B below is a perspective view of dynodes Dyl and Dy2 and the plate electrode 10 of Ohmura. The dynodes Dyl and Dy2 extend in the direction X shown in Fig. B below. Thus, the electrode 10 is not located between the edges of the dynodes Dyl and Dy2 with respect to the extending direction X. Ohmura discloses that because of the configurations of the dynodes Dyl and Dy2 and the plate electrode 10, the equipotential surface S is formed such that electrons from respective portions "a" through "e" on the first dynode Dyl (see the lower part of Fig. 9) travel toward the dynode group Dy that includes the dynode Dy2 (see the upper part of Fig. 9). See col. 7, lines 8-14. The lower part of Fig. 9 is a cross sectional diagram of the Fig. B cut by a plane perpendicular to direction X. The plate electrode 10 does not smooth the equipotential surface along direction X in which the dynodes Dyl and Dy2 extend. Thus, Ohmura's plate electrode 10 does not correspond to the potential regulating means recited in claim 1.

Thus, the applied reference fails to teach or render obvious each dynode extending in a prescribed direction, the plurality of dynodes having a first dynode having an edge in the prescribed direction and a second dynode having an edge in the prescribed direction, the first dynode receiving electrons from the cathode and multiplying the electrons and emitting the multiplied electrons, and the second dynode receiving the electrons from the first dynode and multiplying the electrons and emitting the multiplied electrons, and potential regulating

means disposed in a prescribed position between the edge of the first dynode and the edge of the second dynode, and smoothing an equipotential surface in a space between the first dynode and the second dynode along the prescribed direction.

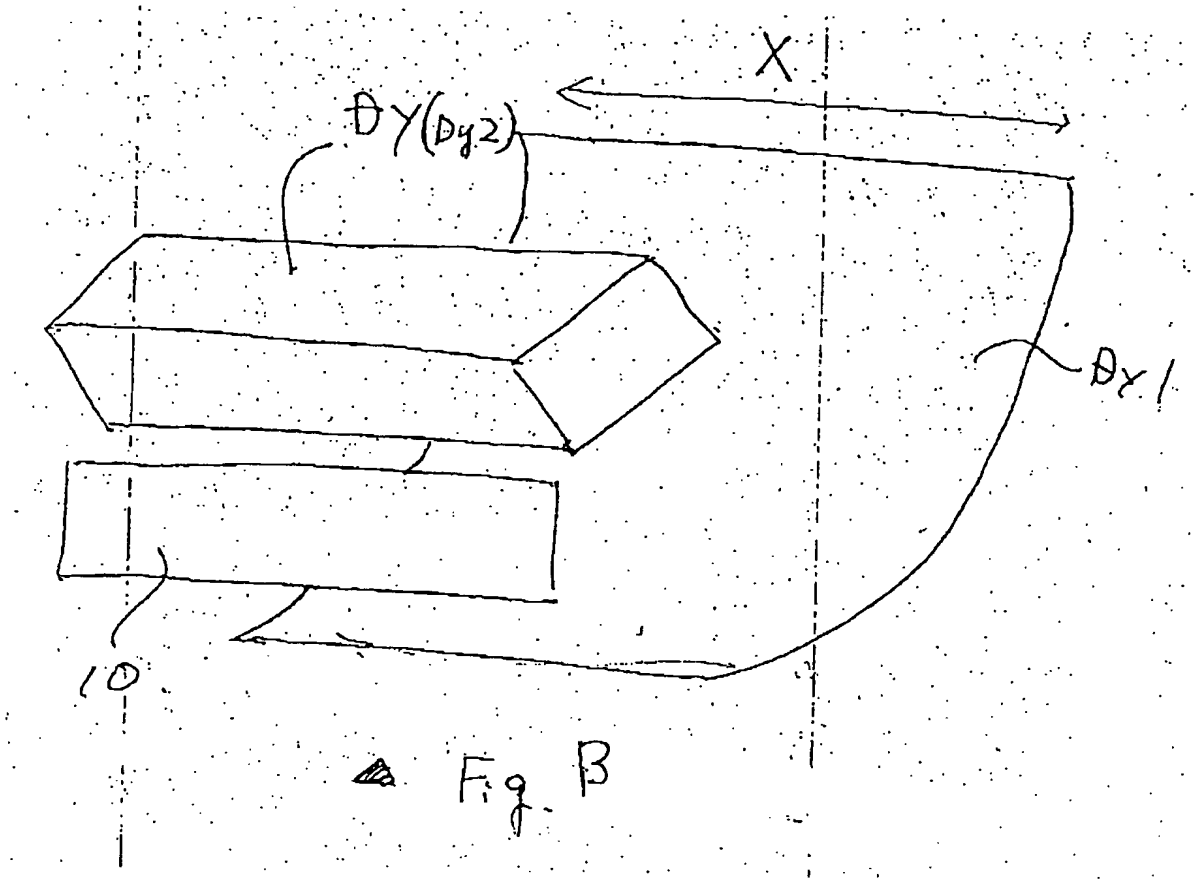

Fig. B

The dependent claims are patentable at least due to their dependence on allowable independent claim 1 and the additional features that they recite.

Accordingly, withdrawal of the rejection is respectfully requested.

IV. New Claims 20 And 21 Are Patentable

New claims 20 and 21 are added. New claims 20 and 21 are patentable at least due to their dependence on allowable independent claim 1 and for the additional features that they recite.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-21 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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Attachments:
Petition for Extension of Time
Amendment Transmittal

Date: December 17, 2009

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